Abstract of the Disclosure

An X-ray diagnostic system includes a CCD camera, a device for generating external trigger pulses and a system control. The system control is formed in such a way that, in the absence of X-radiation, a readout of the CCD camera without a useful signal takes place at regular time intervals. To reduce the dark signal component in the useful signal of the CCD camera, the system control is formed in such a way that, when an external trigger pulse occurs at a point in time at which no readout of the CCD camera is taking place, firstly a readout without a useful signal is triggered and then an exposure of the CCD camera takes place. Further, when an external trigger pulse occurs at a point in time at which a readout of the CCD camera is taking place, a readout without a useful signal is suppressed before an exposure of the CCD camera.